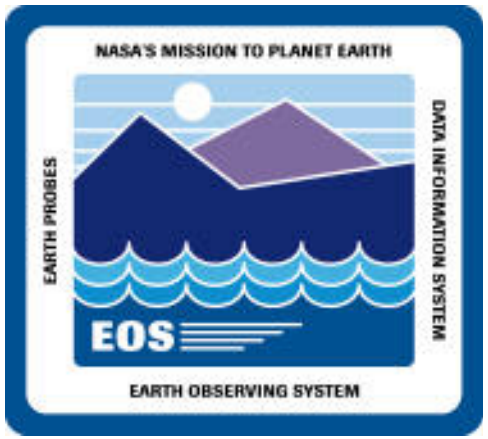


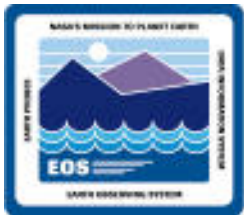
Event Handling/Fault Management

Narayan Prasad

nprasad@eos.hitc.com

30 October 1995

Overview



Event Handling/Fault Management scope is ECS

- **subsystem to subsystem interfaces**
- **application interface to Management Subsystem services**

Event Handling Users

- **every ECS component**

Scenario Context

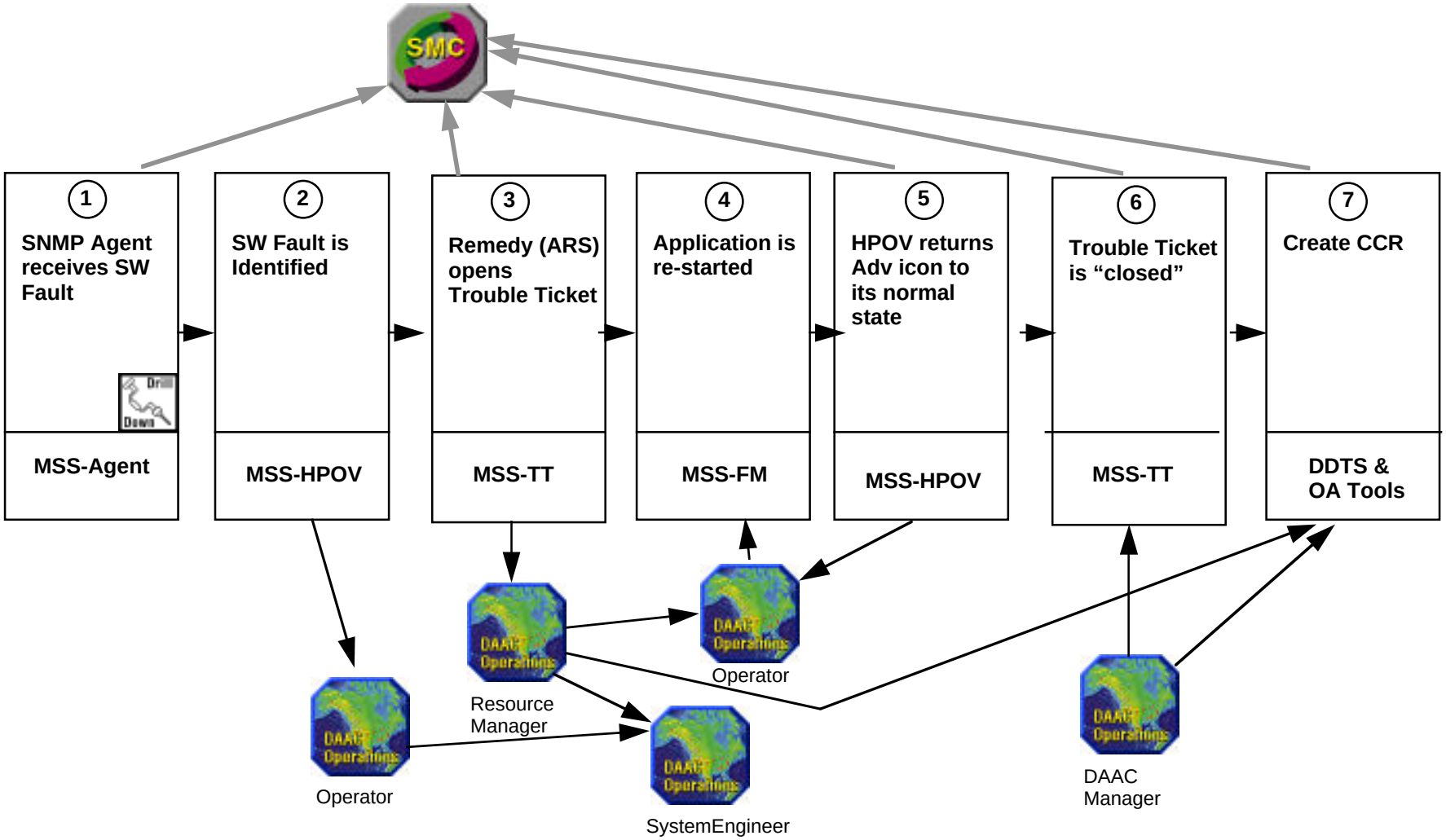
- **Interaction between ECS components**
- **ECS custom component interacting with COTS**

Events are

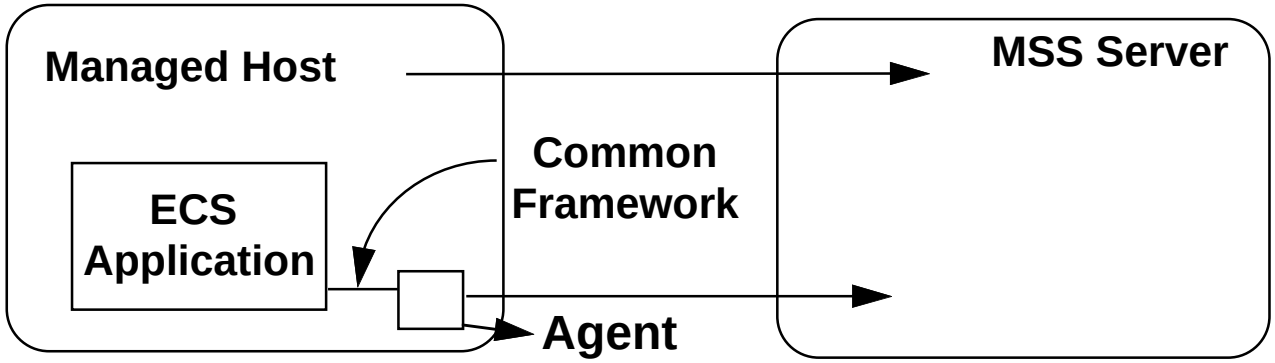
- **errors**
- **Management events (faults, security, performance, etc.)**

Application Software Fault

Functional Flow



Concepts



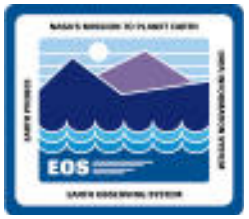
Some events (e.g. faults) are automatically detected by the SNMP agent and notified to the fault manager

Applications can also generate events (e.g. errors) that are severe enough to impact operations

Represents a common mechanism to handle events (e.g. errors, transactions, etc.) generated within the ECS application interface

This mechanism does not replace the existing fault handling mechanism but extends capability

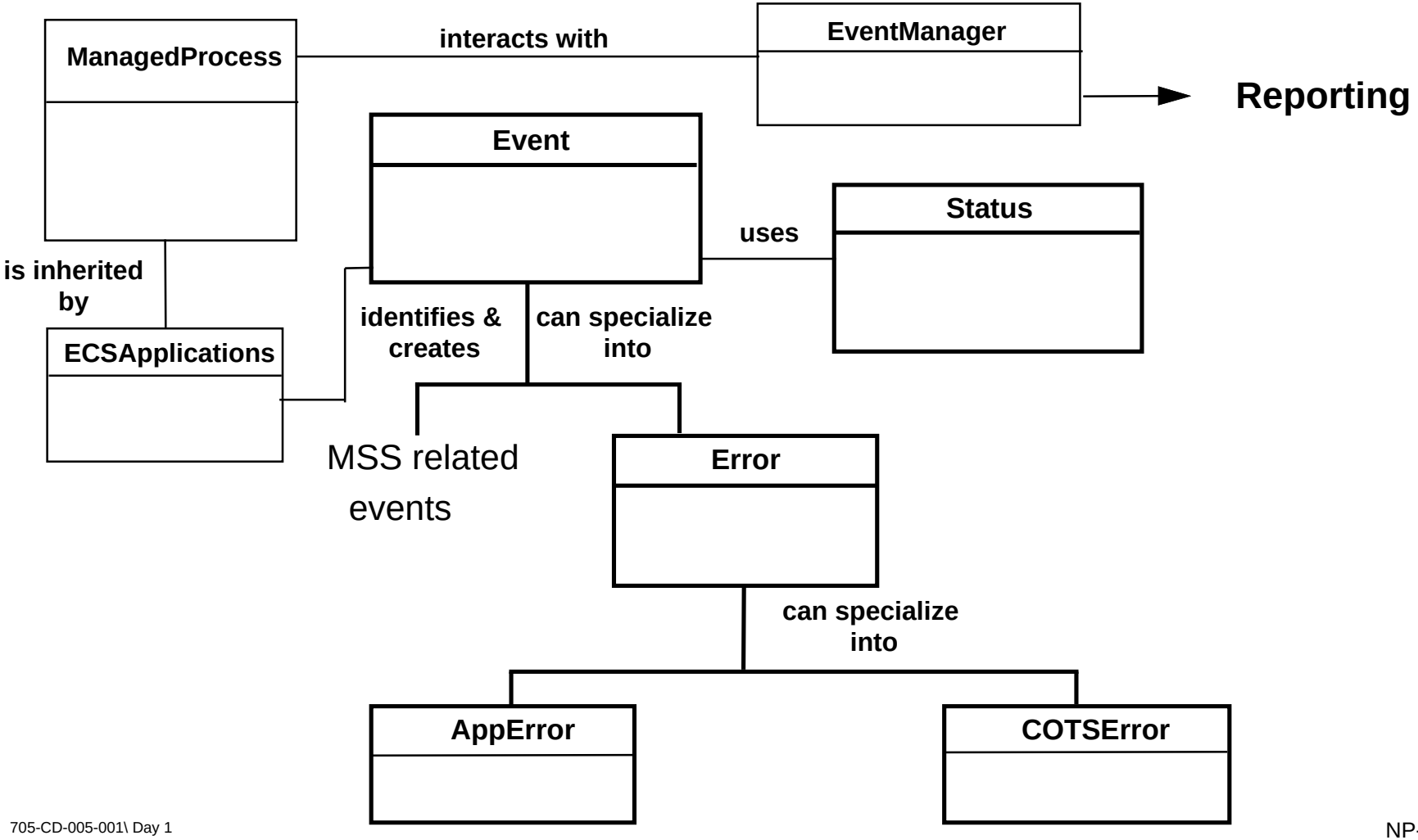
Drivers



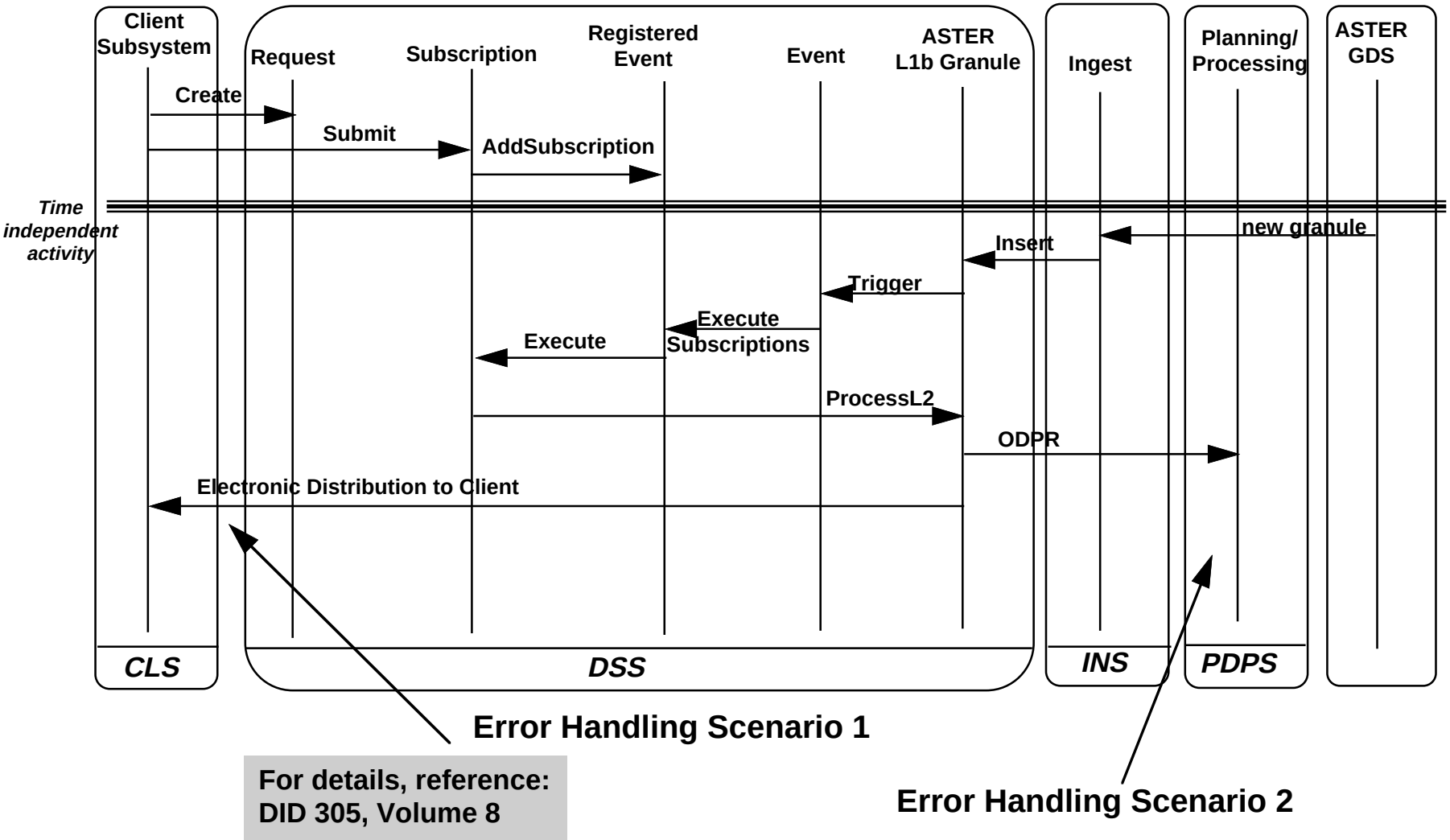
- **Provide common framework**
- **Make software robust and failure resistant**
- **Make software more maintainable**
- **Satisfy operational requirements for problem reporting**
- **Provide capability to monitor system state end-to-end in real time**

Software Design – High Level Class Model

Each event is uniquely identified and tied to a severity level

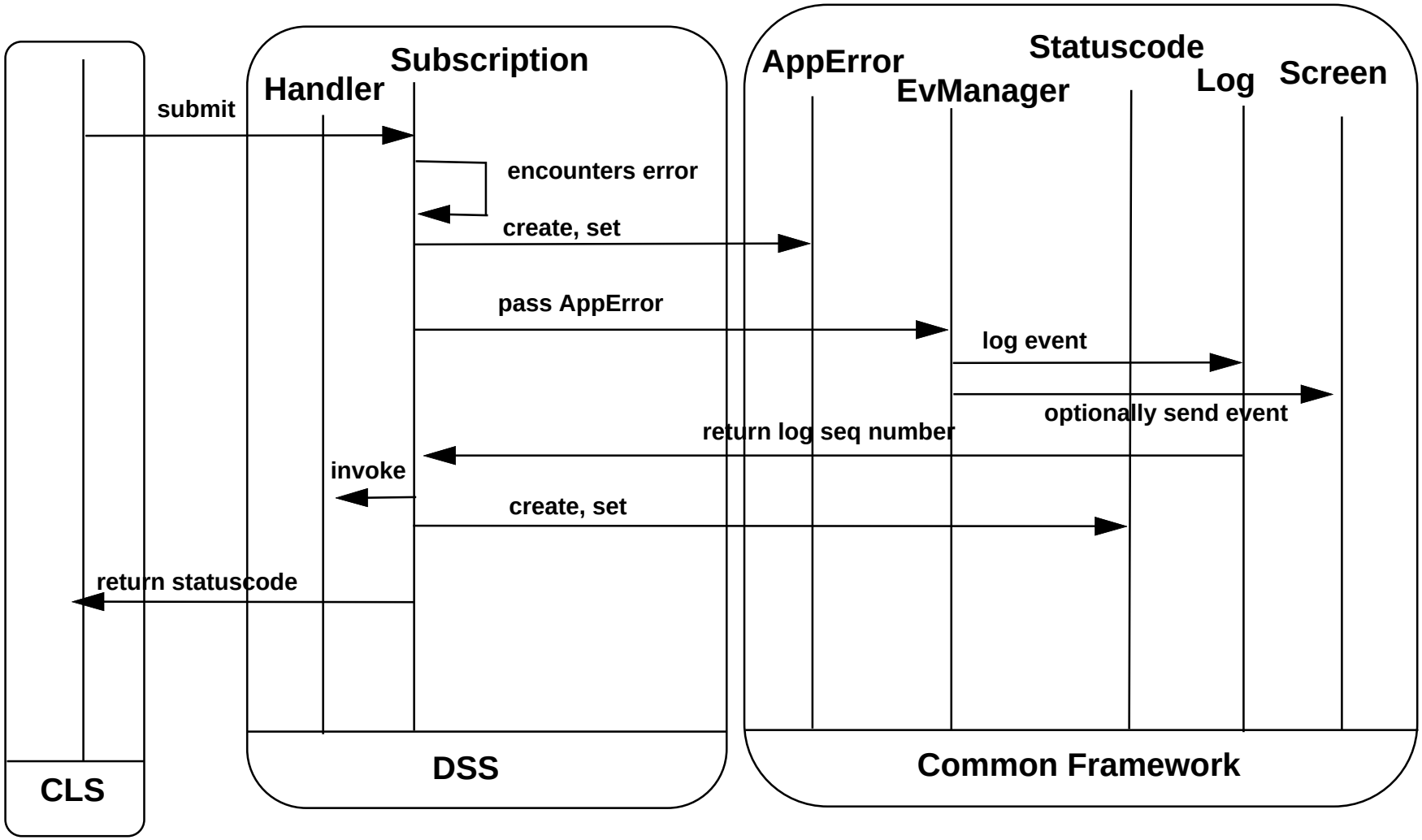


Software Design – DAR Event Trace (High level)

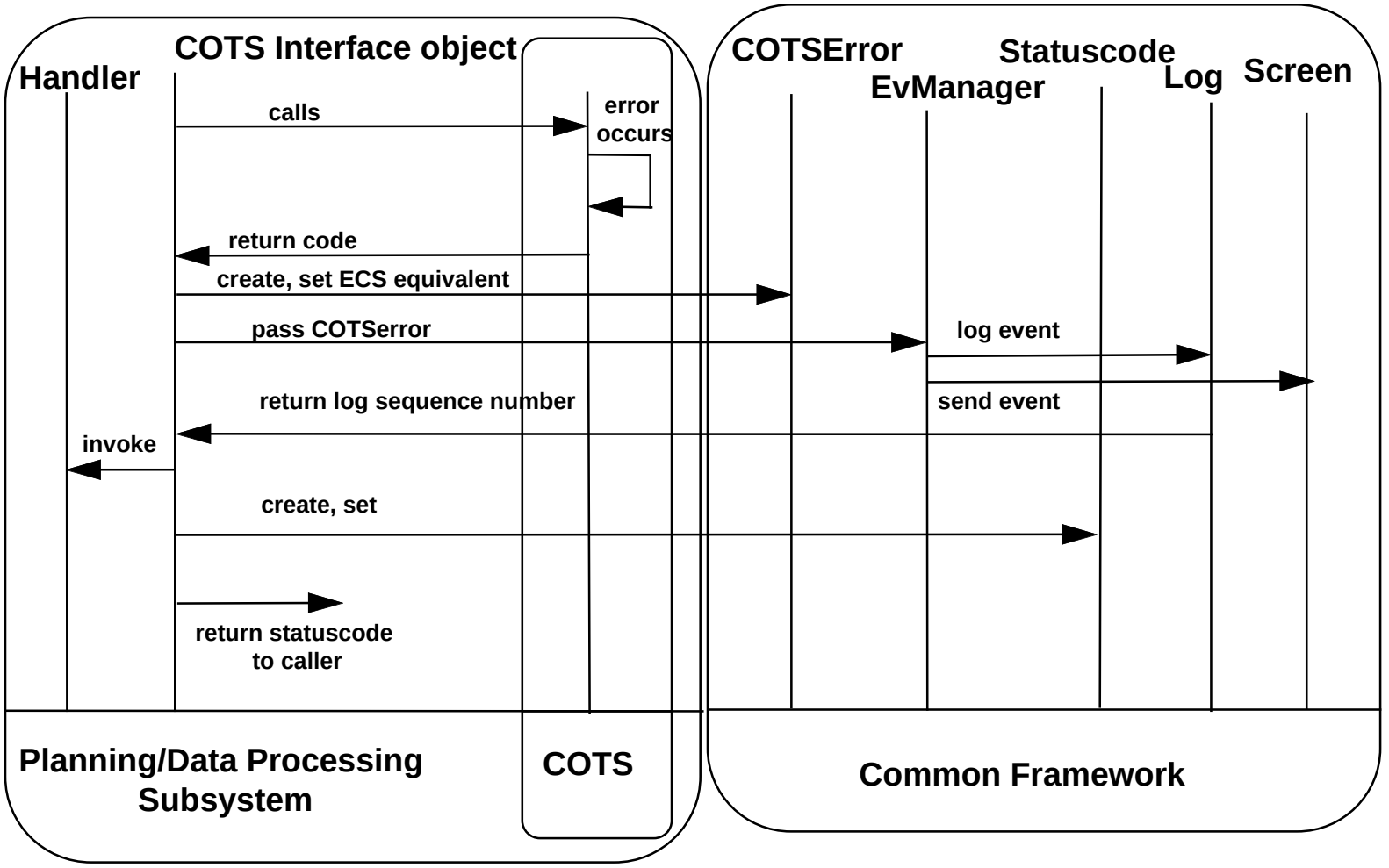


For details, reference: DID 305, Volume 8

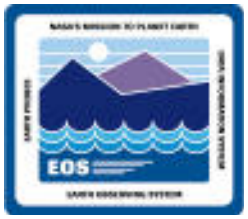
Error Handling Scenario 1 – ECS Custom Components



Error Handling Scenario 2 – ECS Custom Component and COTS



Summary



Simple event model

Provides a common framework

Rules and guidelines will enforce discipline and code uniformity

Scalable for future additions in both COTS and custom components

DAAC Operations will have ultimate control on event reporting subject to policy